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Condition Assessment of William Beaumont General Hospital Historic Buildings at Fort Bliss, Texas

Appendix A: Building Condition Matrix

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September 2002



REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188		
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 01-09-2002		2. REPORT TYPE Final		3. DATES COVERED (FROM - TO) xx-xx-2002 to xx-xx-2002	
4. TITLE AND SUBTITLE Condition Assessment of William Beaumont General Hospital Historic Buildings at Fort Bliss, Texas Appendix A: Building Condition Matrix Unclassified			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) Napier, Thomas R. ; Author McCarthy, Sheila A. ; Author			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Army Engineer Research and Development Center (ERDC) Construction Engineering Research Laboratory (CERL) PO Box 9005 Champaign, IL61826-9005			8. PERFORMING ORGANIZATION REPORT NUMBER ERDC/CERL TR-02-26, Appendix A		
9. SPONSORING/MONITORING AGENCY NAME AND ADDRESS USAADACENFB Building 624 Pleasanton Road Fort Bliss, TX79916-6816			10. SPONSOR/MONITOR'S ACRONYM(S) ATZC-DOE-C		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT APUBLIC RELEASE					
13. SUPPLEMENTARY NOTES Copies are available from the National Technical Informatin Service, 5285 Port Royal Road, Springfield, VA 22161.					
14. ABSTRACT The facilities and landscape features in the William Beaumont Hospital Historic District at Fort Bliss, Texas, are eligible for inclusion in the National Register of Historic Places. Therefore, redevelopment of this area must preserve its character and history. The Fort Bliss Directorate of Environment has developed an Environmental Assessment for the District. A Memorandum of Agreement developed between Fort Bliss and the Texas State Historic Preservation Officer includes a requirement to develop a rehabilitation and reuse plan for selected buildings. Among other things, this plan must include a condition assessment and a structure rehabilitation plan. The objective of this project was to assess the present condition of the Bandstand, Chapel, Theater, Gymnasium, three barracks, a Bachelor Officers Quarters, and a Conference Center in the District. Researchers conducted onsite inspections of all major building elements in all locations within the buildings. Photographs are included to illustrate the condition of selected building elements. Appendix A provides an "at-a-glance" display of each building's condition, described by major system and components.					
15. SUBJECT TERMS William Beaumont General Hospital; service life; historic buildings; Fort Bliss, Texas; condition assessment; Army facilities					
16. SECURITY CLASSIFICATION OF: a. REPORT Unclassified		17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 15	19. NAME OF RESPONSIBLE PERSON Napier, Thomas R. Thomas.R.Napier@erdc.usace.army.mil	
				19b. TELEPHONE NUMBER International Area Code Area Code Telephone Number 217352-6511 DSN -	
b. ABSTRACT Unclassified		c. THIS PAGE Unclassified			
			Standard Form 298 (Rev. 8-98) Prescribed by ANSI Std Z39.18		

Foreword

This study was conducted for the Department of Environment, Fort Bliss, TX, under Military Interdepartmental Purchase Request (MIPR) 2042-96, "William Beaumont Army Medical Center Mitigation," dated 30 September 1996. The technical monitor was Daniel Delahaye, ATZC-DOE-C.

The work was performed by the Facilities Maintenance Branch (CF-F) of the Facilities Division (CF), Construction Engineering Research Laboratory (CERL). The CERL Principal Investigator was Thomas R. Napier. The technical editor was Gordon L. Cohen, Information Technology Laboratory – Champaign. Mark W. Slaughter is Chief, CEERD-CF-F, and L. Michael Golish is Chief, CEERD-CF. The Technical Director of the Facility Acquisition and Revitalization business area is Dr. Paul A. Howdyshell, CEERD-CV-ZT, and the Director of CERL is Dr. Alan W. Moore.

CERL is an element of the Engineer Research and Development Center (ERDC), U.S. Army Corps of Engineers. The Commander and Executive Director of ERDC is COL John W. Morris III, EN, and the Director is Dr. James R. Houston.

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This document is Appendix A of the report: *Condition Assessment of William Beaumont General Hospital Historic Buildings at Fort Bliss, Texas*, ERDC/CERL Technical Report 02-26.















This Appendix provides an “at-a-glance” display of the each building’s condition, described by major systems and components. The condition as a whole is represented, but not specific instances or requirements. Conditions are described as follows:





-  Indicates the system or its components are generally serviceable as is, but may require cleaning, reconditioning, or other routine re-commissioning tasks.
-  Indicates repair or minor repairs will be required. These may include the system as a whole, or some of its components within the building.
-  Indicates that extensive repair or rehabilitation will be required. This may include the system as a whole, or many of its components throughout the building.
-  Indicates that replacement of the system or components is appropriate, either because of deterioration or damage, or because it may be inappropriate in a rehabilitation context.

Note that the serviceability of a building system or component can vary according to the perspective from which it is evaluated. Performance of an item may be completely satisfactory in absolute terms. That is, it is functioning as intended or expected, and may even have been recently installed. However, in a rehabilitation context, a component may be inappropriate due to its appearance, or effect on the overall appearance of the building.

Therefore, two perspectives are provided. The “Serviceability” perspective represents the system’s or component’s condition in their current state. That is: (1) if the item performing as intended, (2) if repair or upgrade would be necessary, and (3) what is the extent of deficiency or damage and what level of repair or upgrade would be necessary to restore its performance. The “Rehabilitation” perspective considers the appropriateness of the existing system or component within a rehabilitation context, as well as its current serviceability or performance.

SI conversion factors		
1 in.	=	2.54 cm
1 ft	=	0.305 m
1 yd	=	0.9144 m
1 sq in.	=	6.452 cm ²
1 sq ft	=	0.093 m ²
1 sq yd	=	0.836 m ²
1 cu in.	=	16.39 cm ³
1 cu ft	=	0.028 m ³
1 cu yd	=	0.764 m ³
1 gal	=	3.78 L
1 lb	=	0.453 kg
1 kip	=	453 kg
1 psi	=	6.89 kPa
°F	=	(°C x 1.8) + 32
1 BTU	=	1.055056+e021 attjoules
1 psf	=	47.88026 pascals

7122, Bandstand	Current	Adaptive use	Description
	Serviceability	Design	
SUBSTRUCTURE			
Foundation			Repair spalled foundation wall surfaces
Slab on grade			Repair or replace floor slab
SUPERSTRUCTURE			
Load bearing walls & columns			Repair spalled column surfaces
Floor framing	N/A	N/A	
Roof framing			Replace deteriorated rafters
EXTERIOR CLOSURE			
Roofing			Replace roofing (possible ACM)
Walls	N/A	N/A	
Doors	N/A	N/A	
Windows	N/A	N/A	
INTERIOR CONSTRUCTION			
Partitions	N/A	N/A	
Doors	N/A	N/A	
Finishes			Refinish / replace deteriorated bead board ceiling
MECHANICAL			
Plumbing	N/A	N/A	
HVAC	N/A	N/A	
Fire protection	N/A	N/A	
ELECTRICAL			
Power & distribution	N/A		Install electrical power
Lighting	N/A		Install exterior & interior lighting
CONVEYING SYSTEMS			
Elevators / lifts	N/A	N/A	

-  Serviceable with cleaning or reconditioning
-  Some repair required
-  Major repair required
-  Replace

7151, Chapel	Adaptive use		Description
	Current Serviceability	/ Rehab Design	
SUBSTRUCTURE			
Foundation	<div><div></div></div>	<div><div></div></div>	
SUPERSTRUCTURE			
Load bearing walls & columns	<div><div></div></div>	<div><div></div></div>	
Floor framing	<div><div></div></div>	<div><div></div></div>	
Roof framing	<div><div></div></div>	<div><div></div></div>	
EXTERIOR CLOSURE			
Roofing	<div><div></div></div>	<div><div></div></div>	Replace w/ historically appropriate shingle style
Walls	<div><div></div></div>	<div><div></div></div>	Repair minor cracking; refinish
Doors	<div><div></div></div>	<div><div></div></div>	Replace entry. Rehabilitate / replace sacristy & boiler room doors
Windows	<div><div></div></div>	<div><div></div></div>	Repair / refinish lobby & sacristy windows Reinstall nave windows
INTERIOR CONSTRUCTION			
Partitions	<div><div></div></div>	<div><div></div></div>	Remove partitioning in choir loft
Doors	<div><div></div></div>	<div><div></div></div>	Repair / refinish interior doors
Finishes	<div><div></div></div>	<div><div></div></div>	Decontaminate all surfaces Refinish wall surfaces Refinish nave floor Replace other floor finishes Repair minor cracking / defects
MECHANICAL			
Plumbing	<div><div></div></div>	<div><div></div></div>	Add restroom facilities
HVAC	<div><div></div></div>	<div><div></div></div>	Replace heating / cooling systems
Fire protection	N/A	N/A	
ELECTRICAL			
Power & distribution	<div><div></div></div>	<div><div></div></div>	Upgrade to code
Lighting	<div><div></div></div>	<div><div></div></div>	Upgrade to code
CONVEYING SYSTEMS			
Elevators / lifts	N/A	N/A	

- Serviceable with cleaning or reconditioning
- Some repair required
- Major repair required
- Replace





7152, Theater	Current Serviceability	Adaptive use / Rehab Design	Description
SUBSTRUCTURE			
Foundation	●	●	
Slab on grade	●	●	
SUPERSTRUCTURE			
Load bearing walls & columns	●	●	Replace columns at entry canopy
Floor framing	N/A	N/A	
Roof framing	●	●	
EXTERIOR CLOSURE			
Roofing	●	●	Replace w/ historically appropriate shingle style
Walls	●	●	Repair minor cracking; refinish
Doors	●	●	
Windows	●	●	Refinish windows at lobby & washroom areas
INTERIOR CONSTRUCTION			
Partitions	●	●	
Doors	●	●	
Finishes	●	●	
MECHANICAL			
Plumbing	●	●	
HVAC	●	●	
Fire protection	●	●	
ELECTRICAL			
Power & distribution	●	●	
Lighting	●	●	
CONVEYING SYSTEMS			
Elevators / lifts	N/A	N/A	
SITE			
Site improvements	●	●	Repair / replace stoop at southeast door

- Serviceable with cleaning or reconditioning
- Some repair required
- Major repair required
- Replace

7155, Gymnasium	Adaptive use		Description
	Current Serviceability	/ Rehab Design	
SUBSTRUCTURE			
Foundation	<div><div></div><div></div></div>	<div><div></div><div></div></div>	
Slab on grade	<div><div></div><div></div></div>	<div><div></div><div></div></div>	
SUPERSTRUCTURE			
Load bearing walls & columns	<div><div></div><div></div></div>	<div><div></div><div></div></div>	
Floor framing	<div><div></div><div></div></div>	<div><div></div><div></div></div>	
Roof framing	<div><div></div><div></div></div>	<div><div></div><div></div></div>	
EXTERIOR CLOSURE			
Roofing	<div><div></div></div>	<div><div></div></div>	Repair damaged roofing at south gable Replace w/ historically appropriate shingle style
Walls	<div><div></div></div>	<div><div></div></div>	Repair minor cracking; refinish
Doors	<div><div></div></div>	<div><div></div></div>	Replace w/ historically appropriate doors
Windows	<div><div></div></div>	<div><div></div></div>	Repair & refinish windows
INTERIOR CONSTRUCTION			
Partitions	<div><div></div></div>	<div><div></div></div>	
Doors	<div><div></div></div>	<div><div></div></div>	Repair / refinish doors; replace where missing
Finishes	<div><div></div></div>	<div><div></div></div>	Decontaminate all interior surfaces Repair NW corner of gym floor Refinish wall surfaces Replace other floor finishes Refinish ceiling surfaces
MECHANICAL			
Plumbing	<div><div></div></div>	<div><div></div></div>	Reconfigure plumbing for future occupancy
HVAC	<div><div></div></div>	<div><div></div></div>	Remove evaporative coolers from roof Remove boiler enclosure from east side Replace heating & cooling systems
Fire protection	N/A	N/A	
ELECTRICAL			
Power & distribution	<div><div></div></div>	<div><div></div></div>	Upgrade to code & future occupancy
Lighting	<div><div></div></div>	<div><div></div></div>	Upgrade to code & future occupancy
CONVEYING SYSTEMS			
Elevators / lifts	N/A	<div><div></div></div>	Add lifts for accessibility where required
SITE			
Grading / drainage	<div><div></div></div>	<div><div></div></div>	Regrade to drain away from west wall
Site improvements	<div><div></div></div>	<div><div></div></div>	Regrade; install wheelchair access at west door

- Serviceable with cleaning or reconditioning
- Some repair required
- Major repair required
- Replace

7157, Barracks	Current Serviceability	Adaptive use / Rehab Design	Description
SUBSTRUCTURE			
Foundation	<div></div>	<div></div>	Repair crack at south wall
SUPERSTRUCTURE			
Load bearing walls & columns	<div></div>	<div></div>	Confirm loading capacity for future occupancy
Floor framing	<div></div>	<div></div>	
Roof framing	<div></div>	<div></div>	Repair / level framing under 1st & 2nd fl washrooms
Porch framing	<div></div>	<div></div>	Confirm integrity of framing at porch corners
			Confirm integrity of framing at columns & stairs
			Repair cracking at porch slab southeast corner
			Add accessible entry to first floor
EXTERIOR CLOSURE			
Roofing	<div></div>	<div></div>	Replace roofing at porch w/ metal roofing
			Replace w/ historically appropriate shingle style
Walls	<div></div>	<div></div>	Repair minor cracking; refinish
			Close opening at evaporative cooler duct
Doors	<div></div>	<div></div>	Replace w/ historically appropriate doors
Windows	<div></div>	<div></div>	Repair / refinish windows; replace missing sashes
			Reinstall windows at 2nd floor east elevation
Porch	<div></div>	<div></div>	Remove 2nd floor porch closure
			Rehabilitate / replace porch railings & trim
INTERIOR CONSTRUCTION			
Partitions	<div></div>	<div></div>	Reconfigure per future occupant's requirements
Doors	<div></div>	<div></div>	Replace w/ historically appropriate doors
			Fire rated doors required at protected stairwells
Finishes	<div></div>	<div></div>	Repair / refinish wall & ceiling finishes
			Replace floor finishes as req'd for future occupant
MECHANICAL			
Plumbing	<div></div>	<div></div>	Reconfigure for future occupant
HVAC	<div></div>	<div></div>	Replace heating / cooling systems
Fire protection	<div></div>	<div></div>	Extend sprinkler to 2nd floor, attic, & crawlspace
ELECTRICAL			
Power & distribution	<div></div>	<div></div>	Upgrade to code & future occupancy
Lighting	<div></div>	<div></div>	Upgrade to code & future occupancy
CONVEYING SYSTEMS			
Elevators / lifts	N/A	<div></div>	Add elevator where required for future occupancy
SITE			
Site improvements	<div></div>	<div></div>	Install wheelchair access at northeast door

-  Serviceable with cleaning or reconditioning
-  Some repair required
-  Major repair required
-  Replace

7158, Barracks	Current Serviceability	Adaptive use / Rehab Design	Description
SUBSTRUCTURE			
Foundation	<div></div>	<div></div>	Repair crack at south wall
SUPERSTRUCTURE			
Load bearing walls & columns	<div></div>	<div></div>	Confirm loading capacity for future occupancy Repair / level framing at 1st & 2nd fl washrooms
Floor framing	<div></div>	<div></div>	
Roof framing	<div></div>	<div></div>	Confirm integrity of framing at porch corners
Porch framing	<div></div>	<div></div>	Confirm integrity of framing at columns & stairs Repair cracking at porch slab southeast corner Add accessible entry to first floor
EXTERIOR CLOSURE			
Roofing	<div></div>	<div></div>	Replace roofing at porch w/ metal roofing Replace w/ historically appropriate shingle style
Walls	<div></div>	<div></div>	Repair minor cracking; refinish Close opening at evaporative cooler duct
Doors	<div></div>	<div></div>	Replace w/ historically appropriate doors
Windows	<div></div>	<div></div>	Repair / refinish windows; replace sashes as req'd
Porch	<div></div>	<div></div>	Remove 2nd floor porch closure Rehabilitate / replace porch railings & trim
INTERIOR CONSTRUCTION			
Partitions	<div></div>	<div></div>	Reconfigure per future occupant's requirements
Doors	<div></div>	<div></div>	Replace w/ historically appropriate doors Fire rated doors required at protected stairwells
Finishes	<div></div>	<div></div>	Repair / refinish wall & ceiling finishes Replace floor finishes as req'd for future occupant
MECHANICAL			
Plumbing	<div></div>	<div></div>	Reconfigure for future occupant
HVAC	<div></div>	<div></div>	Replace heating / cooling systems
Fire protection	<div></div>	<div></div>	Install sprinkler system; include attic & crawl space
ELECTRICAL			
Power & distribution	<div></div>	<div></div>	Upgrade to code & future occupancy
Lighting	<div></div>	<div></div>	Upgrade to code & future occupancy
CONVEYING SYSTEMS			
Elevators / lifts	<div></div>	<div></div>	Add elevator / lift where required
SITE			
Site improvements	<div></div>	<div></div>	Install wheelchair access at northeast door

- Serviceable with cleaning or reconditioning
- Some repair required
- Major repair required
- Replace

7159, Barracks	Current Serviceability	Adaptive use / Rehab Design	Description
SUBSTRUCTURE			
Foundation	●	●	Repair crack at south wall
SUPERSTRUCTURE			
Load bearing walls & columns	●	●	
Floor framing	●	●	Confirm loading capacity for future occupancy Repair / level framing under 1st & 2nd fl washrooms Repair / level framing at 1st & 2nd fl south end
Roof framing	●	●	Confirm integrity of framing at porch corners
Porch framing	●	●	Confirm integrity of framing at columns & stairs Repair cracking at porch slab corners Add accessible entry to first floor
EXTERIOR CLOSURE			
Roofing	●	●	Replace roofing at porch w/ metal roofing Replace w/ historically appropriate shingle style
Walls	●	●	Repair minor cracking; refinish Close opening at evaporative cooler duct
Doors	●	●	Replace w/ historically appropriate doors
Windows	●	●	Reinstall windows at 2nd floor east elevation Repair / refinish windows; replace sashes as req'd
Porch	●	●	Remove 2nd floor porch closure Rehabilitate / replace porch railings & trim
INTERIOR CONSTRUCTION			
Partitions	●	●	Reconfigure per future occupant's requirements
Doors	●	●	Replace w/ historically appropriate doors Fire rated doors required at protected stairwells
Finishes	●	●	Repair / refinish wall & ceiling finishes Replace floor finishes as req'd for future occupant
MECHANICAL			
Plumbing	●	●	Reconfigure for future occupant
HVAC	●	●	Remove boiler enclosure at north end Replace heating / cooling systems
Fire protection	●	●	Extend sprinkler system to attic & crawlspace
ELECTRICAL			
Power & distribution	●	●	Upgrade to code & future occupancy
Lighting	●	●	Upgrade to code & future occupancy
CONVEYING SYSTEMS			
Elevators / lifts	●	●	Add elevator / lift where required

- Serviceable with cleaning or reconditioning
- Some repair required
- Major repair required
- Replace

7166, BOQ	Adaptive use		Description
	Current Serviceability	/ Rehab Design	
SUBSTRUCTURE			
Foundation	<div></div>	<div></div>	
Slab on grade	<div></div>	<div></div>	
SUPERSTRUCTURE			
Load bearing walls & columns	<div></div>	<div></div>	
Floor framing	<div></div>	<div></div>	
Roof framing	<div></div>	<div></div>	
EXTERIOR CLOSURE			
Roofing	<div></div>	<div></div>	Repair; or replace w/ appropriate style shingle
Walls	<div></div>	<div></div>	Repair minor cracking; refinish
Doors	<div></div>	<div></div>	Replace south basement door
			Repair main entry door
Windows	<div></div>	<div></div>	
INTERIOR CONSTRUCTION			
Partitions	<div></div>	<div></div>	
Doors	<div></div>	<div></div>	
Finishes	<div></div>	<div></div>	Repair / refinish wall & ceiling surfaces
			Clean or replace carpet
MECHANICAL			
Plumbing	<div></div>	<div></div>	
HVAC	<div></div>	<div></div>	Replace heating / cooling systems
Fire protection	<div></div>	<div></div>	
ELECTRICAL			
Power & distribution	<div></div>	<div></div>	
Lighting	<div></div>	<div></div>	
CONVEYING SYSTEMS			
Elevators / lifts	N/A	N/A	
SITE			
Grading / drainage	<div></div>	<div></div>	Regrade to divert runoff at west wall
			Regrade to prevet intrusion at south b'smt. door

- Serviceable with cleaning or reconditioning
- Some repair required
- Major repair required
- Replace

7167, Conference Center	Current Serviceability	Adaptive use / Rehab Design	Rehabilitat'n Design
SUBSTRUCTURE			
Foundation	<div></div>	<div></div>	
Slab on grade	<div></div>	<div></div>	
SUPERSTRUCTURE			
Load bearing walls & columns	<div></div>	<div></div>	
Floor framing	<div></div>	<div></div>	Repair cut joists at utility room
Roof framing	<div></div>	<div></div>	
EXTERIOR CLOSURE			
Roofing	<div></div>	<div></div>	Repair; or replace w/ appropriate style shingle
Walls	<div></div>	<div></div>	Repair minor cracking; refinish
Doors	<div></div>	<div></div>	
Windows	<div></div>	<div></div>	
Porch	<div></div>	<div></div>	Refinish porch railings & trim
INTERIOR CONSTRUCTION			
Partitions	<div></div>	<div></div>	
Doors	<div></div>	<div></div>	
Finishes	<div></div>	<div></div>	
MECHANICAL			
Plumbing	<div></div>	<div></div>	
HVAC	<div></div>	<div></div>	Remove evaporative cooler from roof
			Replace cooling system
Fire protection	<div></div>	<div></div>	
ELECTRICAL			
Power & distribution	<div></div>	<div></div>	
Lighting	<div></div>	<div></div>	
CONVEYING SYSTEMS			
Elevators / lifts	<div></div>	<div></div>	
SITEWORK			
Grading / drainage	<div></div>	<div></div>	
Site improvements	<div></div>	<div></div>	Repair or replace ext. stairs & wheelchair ramp

- Serviceable with cleaning or reconditioning
- Some repair required
- Major repair required
- Replace